

X-RAY TUBE FOR A COMPUTED TOMOGRAPHY SYSTEM AND METHOD

ABSTRACT

[0040] An X-ray tube is provided as a source of X-rays for imaging systems such as computed tomography (CT) system. The X-ray tube includes an anode assembly comprising a target for emitting X-rays upon irradiation with an electron beam, a rotor shaft coupled to the target and a motor rotor system such that the rotor shaft is configured to rotate the target, and at least two duplex bearing assemblies to support the rotor shaft. The X-ray tube further includes a cathode assembly comprising a cathode configured to emit electron beam and a conical insulator isolating the cathode from ground potential.